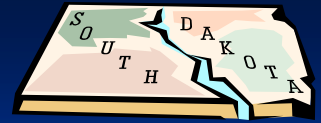


# Healthy South Dakota Schools: Promoting Healthy Weight

Larissa Skjonsberg and Linda Ahrendt  
South Dakota Department of Health

- Weight
- Fruit and Vegetable Intake
- Physical Activity
- Inactivity
- Caloric Determinants



## BMI fits 'Most'

- Lots of muscle?
- Fit and high BMI
- BMI = (wgt in pounds ÷ hgt in inches ÷ hgt in inches) X 703



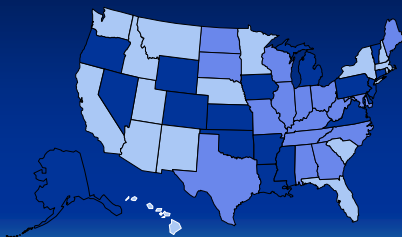
## BMI for Adults

- Healthy Weight--18.5-24.9
- Overweight-- 25.0 - 29.9
- Obese--30 and over
  - Obesity class 1--30-34.9
  - Obesity class 2--35-39.9
  - Extreme obesity (class 3)--≥40

## Obesity Trends\* Among U.S. Adults

**BRFSS, 1987**

(\*BMI ≥30, or ~30 lbs overweight for 5' 4" woman)

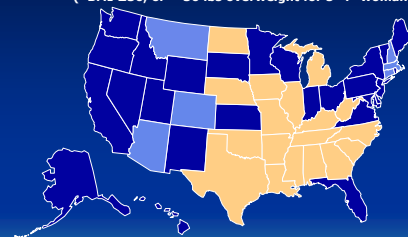


■ No Data ■ <10% ■ 10%-14%

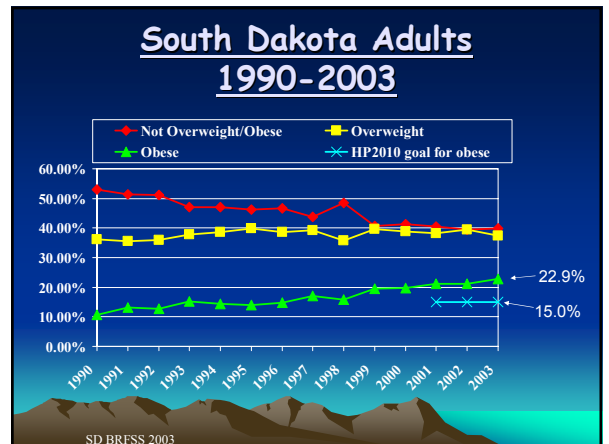
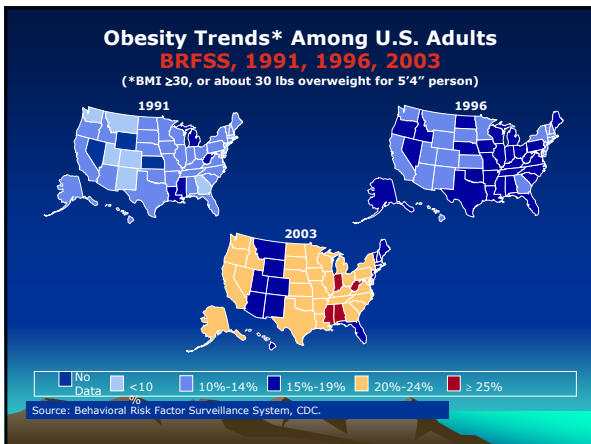
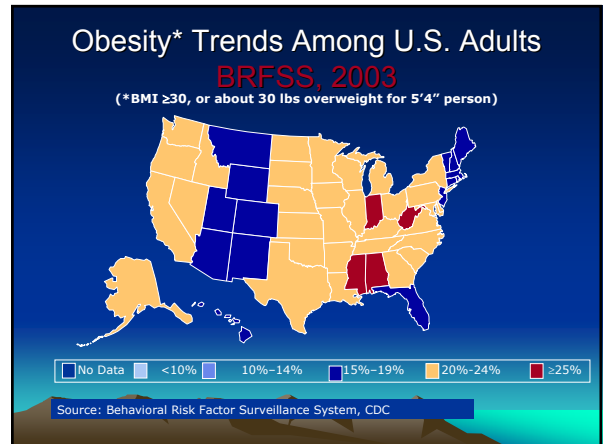
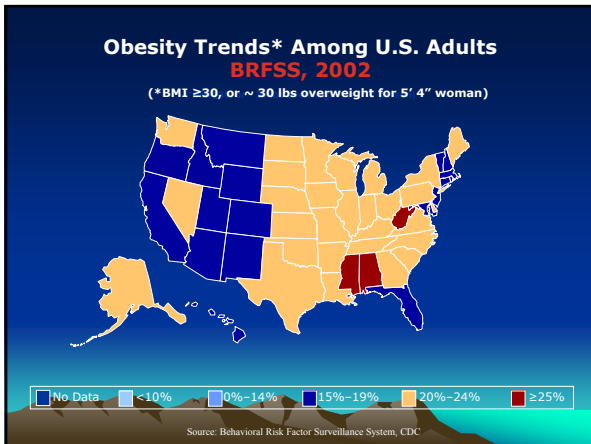
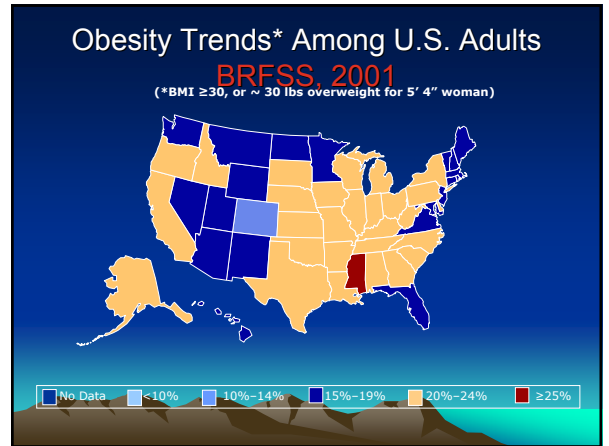
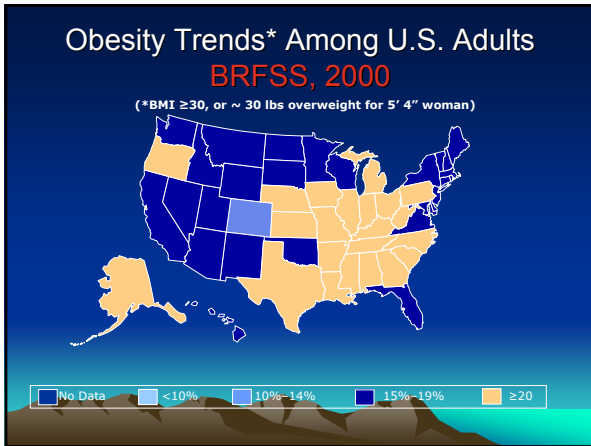
## Obesity Trends\* Among U.S. Adults

**BRFSS, 1999**

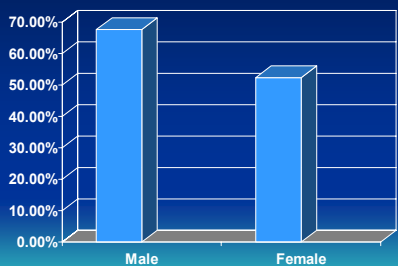
(\*BMI ≥30, or ~30 lbs overweight for 5' 4" woman)



■ No Data ■ <10% ■ 10%-14% ■ 15%-19% ■ ≥20%

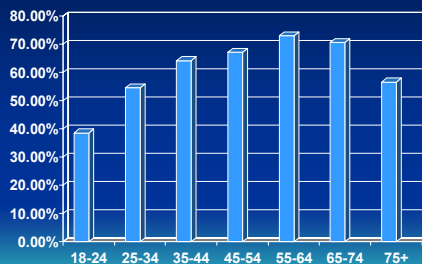


## Overweight/Obese South Dakota Adults



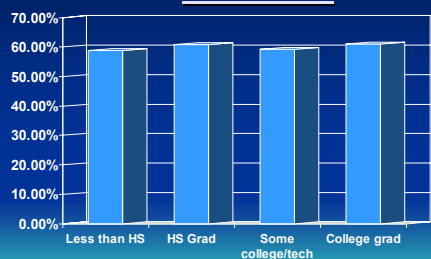
SD BRFSS 2003

## Overweight/Obese South Dakota Adults-- Age



SD BRFSS 2003

## Overweight/Obese South Dakota Adults-- Education



SD BRFSS 2003

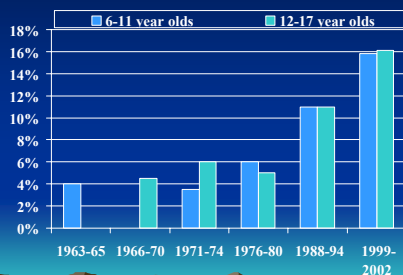
## Differences Adult and Child

- For adults, BMI is not age or gender specific
- For children, BMI is age and gender specific, so BMI-for-age is the measure used

## Definitions Child Growth Charts

- **Overweight and Obese:** 95th percentile and above BMI-for-age
- **At Risk of Overweight:** 85th - 94th percentile BMI-for-age

## Overweight Children & Adolescents -- National



## Child Obesity Consequences

- Cardiovascular risk factors--60% of overweight 5-10 year olds have at least 1 risk factor
- Type 2 diabetes
- Liver disorders
- Hypertension
- Sleep Apnea
- Orthopedic Complications
- Psychological Effects



## South Dakota Department of Health



School Height & Weight Report  
For South Dakota Students  
Started 1998-1999

## Optional Participation

- 1998-1999: 110 schools; 16,723
- 1999-2000: 95 schools; 15,062
- 2000-2001: 86 schools; 12,493
- 2001-2002: 130 schools; 16,781
- 2002-2003: 145 schools; 20,449
- 2003-2004: 196 schools; 28,699
- 2004-2005: ???

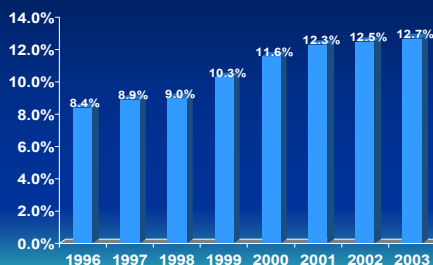
## South Dakota School Height and Weight 2002-2003 School Year

### At Risk For Overweight and Overweight Body Mass Index By Age

Age	Number Of Students	At Risk For Overweight	Overweight	At Risk For Overweight and Overweight Combined
5-8 years	6,320	15.8%	14.2%	30.0%
9-11 years	6,185	16.7%	18.0%	34.7%
12-14 years	4,969	17.9%	18.4%	36.3%
15-19 years	1,888	15.9%	15.0%	30.9%
Total	19,362	16.7%	16.6%	33.3%

HP2010 Goal Overweight 5%

## South Dakota 2-5 Years Olds Overweight, BMI-for-Age



WIC Pediatric Nutrition Surveillance (PedNSS)

## Win-Win

### State

- State data
- Opportunities to build support for individual and environmental change
- Build case for funding

### School (person

submitting data, bldg principal, supt)

- State Report
- Analyzed school data
- District data
- Trends



## For More Information

- <http://www.state.sd.us/doh/SchoolWeight/>
- Forms & instructions to submit data
- Scales & measuring boards

*Be a good example.*



## Strategies Affecting Weight

- Fruit and Vegetable Intake
- Physical Activity
- Inactivity--TV viewing
- Caloric Determinants
- Breastfeeding

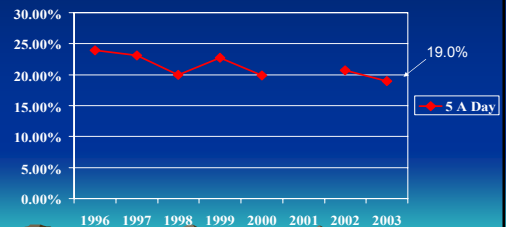


## Fruits and Vegetables

- 5 to 9 per day
- Variety of Colors
- Nat'l goal 75% will eat 5 fruits and/or vegetables per day
- Health benefits



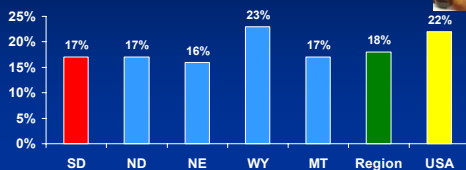
## South Dakota Adults Who Consume At Least Five Servings of Fruits and Vegetables Every Day, 1996-2003



SD BRFSS 2003

HP2010 goal 75%

## Percentage of HS students who ate fruits and vegetables $\geq 5$ times per day.\*



South Dakota was 5% below the national percentage of HS students who ate fruits and vegetables  $\geq 5$  times per day.

\* Had consumed 100% fruit juice, fruit, green salad, potatoes (excluding French fries, fried potatoes, or potato chips), carrots, or other vegetables  $\geq 5$  times per day during the 7 days preceding the survey. 2003 YRFS

## 5 A Day Recall

### Track Your 5 A Day

- How many fruits or vegetables did you consume yesterday?
- How many fruits or vegetables have you consumed today?

## 5-9 A Day What is a Serving?

- $\frac{3}{4}$  cup or 6 oz of 100% fruit or vegetable juice
- A medium size fruit
- 1 cup raw leafy greens
- $\frac{1}{2}$  cup fresh, frozen, or canned vegetables
- $\frac{1}{2}$  cup cooked, frozen, or canned fruit
- $\frac{1}{4}$  cup dried fruit

## Small Steps



- Top cereal or plain yogurt with fruit.
- Instead of a donut or cookie, snack on an apple, banana, carrots, or celery sticks.
- Choose fruit-based desserts rather than cakes, pies, or sweets.
- Choose leafy green salad instead of pasta salad.



## Physical Activity

### Recommendations

- Adults: 30-60 minutes of moderate physical activity most days of the week
- Young People: 60 minutes of age appropriate activity everyday



CDC

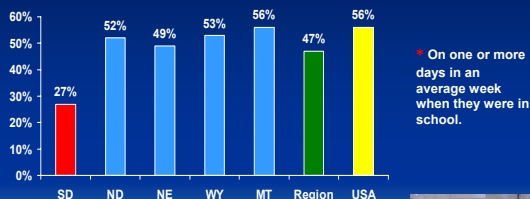
## Adults Lacking Moderate Physical Activity

- 53.5% of SD adults do not have a total of 30 minutes or more of moderate activity per day



BRFSS 2003

## Percentage of HS students who were enrolled in a physical education (PE) class.\* (Table 55)

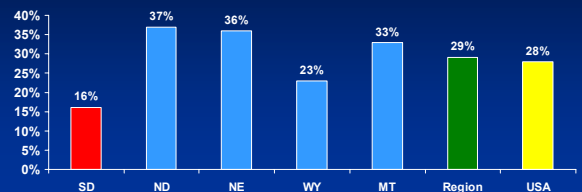


Only 27% of South Dakota's high school students were enrolled in a PE class. This rate is considerably lower than both the regional and national rates.

2003 YRBS



## Percentage of HS students who attended PE class daily.\* (Table 55)



The percentage of students who attended PE class daily in South Dakota was 13 percentage points below the regional average and 12 percentage points below the national total.

\* On 5 days in an average week when they were in school.

## Environment Inventory

- List 5 physical activity facilities open to the public at no charge within 10 miles of your school.
- If available would you use the facilities?
- List 5 ways to promote those facilities in your community/school.

## Small Steps



- Park further from the door.
- Pick up the pace when traveling from one location to another.
- Try a new activity.
- Ask a friend to go for a walk.



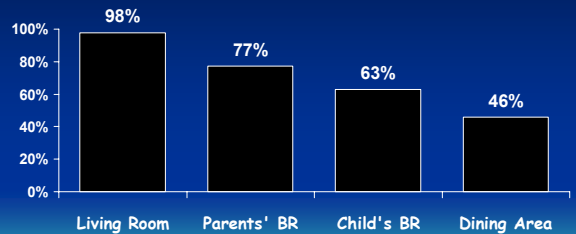
## Inactivity

### HP2010 Objective:

Increase the proportion of children and adolescents who view television 2 or fewer hours per day to 75%.

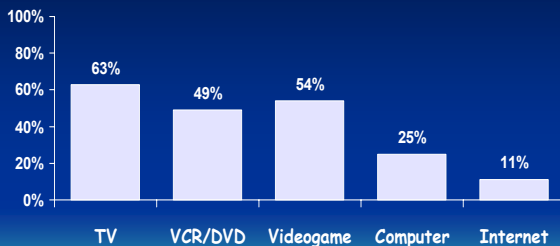


## Television Availability



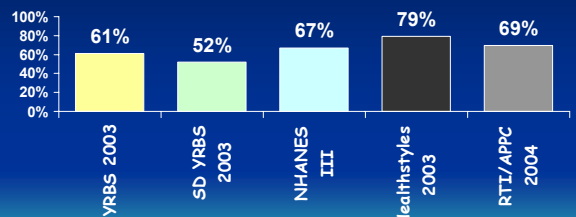
Source: RTI/APPC 2004  
Children 6-13 years old.

## Media in the Bedroom



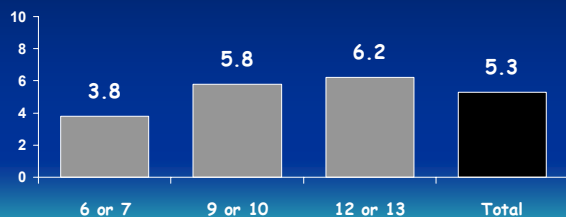
Source: RTI/APPC 2004

## Percent of Children Watching at Least 2 hrs of TV/day



## Total Screen Time, by Age

Mean hours spent "yesterday"

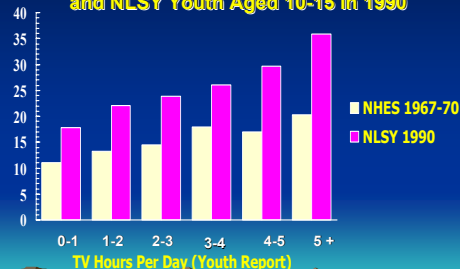


Source: RTI/APPC 2004

## Prevalence of Obesity by Hours of TV per Day:

Prevalence (%)

NHES Youth Aged 12-17 in 1967-70 and NLSY Youth Aged 10-15 in 1990



## Small Steps



- Turn off TV during meal time.
- One night a week do an alternative activity to TV viewing.
- Promote local activity ideas to parents.
- Challenge to move as many hours as spent watching TV.



## Caloric Determinants

- Limit Sweetened Beverages
- Control Portions
- Avoid Meal Skipping
- Increase Family Meals and Decrease Eating Out



## How sizes have changed?



Original 1920s size: 6.5 ounces

12 ounce cans introduced in the 1960s

20 ounce contour bottles introduced in the early 1990s

1 liter contour bottles introduced in late 1990s

## Some Facts to Consider...

- In regular pop, all the calories come from sugar.
- Soda pop is America's single biggest source of refined sugar.
- 12- to 19-year-old boys get 44% of their 34 teaspoons of sugar a day from soft drinks.
- Girls get 40% of their 24 teaspoons of sugar from soda.



## Portion Control

- In the last 50 years, portion sizes have over doubled.
- Plate sizes have increased.
- Restaurant portions have increased.
- Portion distortion is a problem!

## The “Look” of Normal Portion Sizes

- 1 oz. meat: Size of a matchbox
- 3 oz. meat: Size of a deck of cards or bar of soap—the recommended portion for a meal
- 1 oz of cheese looks about the size of a computer floppy disk
- 3 oz. fish: Size of a checkbook
- Medium potato: Size of a computer mouse

## The “Look” of Normal Portion Sizes Continued...

- 1 teaspoon of peanut butter or butter is about the size of the top half of your thumb
- 1 cup pasta: Size of a tennis ball
- Average bagel: Size of a hockey puck
- A small banana is about the size of an eyeglass case

What can you do to change your portion sizes?

## Small Steps



- Eat food on smaller plate.
- Don't take seconds.
- Don't eat in front of the TV.



## Small Steps When Eating Out



- Share an entrée with a friend.
- Eat half your meal and take the other half home.
- Have small size, not “Super-size”.
- Share an appetizer (half the food= half the calories).



## Meal Skippers

- 51% of South Dakota high school students ate breakfast 4 or more times during past 7 days (2003 YRBSS)
  - females 48%; males 53%



## Short –term hunger

- Diminished brain function and school performance



## Resources



## Healthy South Dakota [www.healthysd.gov](http://www.healthysd.gov)

- Kids
- Teens/Tweens
- Schools
- Adults
- Community
- Worksite



## South Dakota Plan Promote Nutrition and Physical Activity and Prevent Obesity and Other Chronic Diseases

Beginning April 2005



## What Can We Do?

- Students
- Parents
- Teachers
- School Food Service
- Administration
- Coaches
- Everyone!



## For more information:

Linda Ahrendt or Larissa Skjonsberg  
Department of Health  
Phone: 605.773.3737

